

## Shaper Cutter Ø155 Z71

A12-210

To achieve an excellent surface finish - Ra less than 0.2, runout less than 0.005 mm -, a roughing and finishing wheel is used. In function of the diameter of the tool 200 to 500 rpm are needed for the face grinding, which requires a fast A-Axis. The below calculated time is considering 0.25 mm material removal.



### 1. Cycletime for Resharpening

Tool specifications					
Diameter 155 mm, Z 71, Grinding Length 25 - 30 mm					
Material HSS					
Operations					
Probe					
dress					
face roughing					
dress					
face finishing					
Feed [mm/Min]	2000	150	180	150	200
Power [kW]		4	2	2	1
Cutting feed [m/s]		18	16	32	24
Used wheels					
8	8	8	1	1	
Grinding time [s]	23	144	928	144	131
Total cycle time	22 Min 49				

The mentioned cycle times are indicative. The material to be ground, different grinding wheels or other coolants can influence the cycle times considerably.

### 2. Used Grinding Wheels

8	1A1 Ø150 C120
1	1A1 Ø150 C180



### 3. Machine and Software Requirements

Machines: 5 axes CNC grinders : GEMINI DMR, Dressing Unit, A-Rapid  
Control: Fanuc 310i  
Coolant: Synthetic Oil, pressure 6 bar  
Software: Quinto 5

responsible engineer: OP,23.4.10

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J. SCHNEEBERGER Maschinen AG 4914 Roggwil Switzerland

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